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FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413			CHOI, PETER H	
			ART UNIT	PAPER NUMBER
			3623	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/915,415

Applicant(s)

SUMITA ET AL.

Examiner

Peter Choi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/23/02.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-34 are pending in the application.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.
3. Should applicant desire to obtain the benefit of foreign priority under 35 U.S.C. 119(a)-(d) prior to declaration of an interference, a translation of the foreign application should be submitted under 37 CFR 1.55 in reply to this action.

Drawings

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:
 - Figure 3 lacks shopping cart 51 (described on page 16 of the specification).
 - In Figure 21, reference character S212 is used to describe the step of sending shopping cart ID, commodity ID, and location data to data collection server. However, reference character S212 is not in the specification. Instead, reference character S221 is used to describe this step.

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:

- Steps S111, S113, and S114 of Figure 11 are described in the specification, but the reference characters used (S111, S113, and S114) are never assigned to these steps
- Steps S131, S134 of Figure 13 are described in the specification, but the reference characters used (S131, S134) are never assigned to these steps

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

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6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-9, 19 and 33 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

- (1) whether the invention is within the technological arts; and
- (2) whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural phenomena) that do not apply, involve, use, or advance the technological arts fail to promote the "progress of science and the useful arts" (i.e., the physical sciences as opposed to social sciences, for example) and therefore are found to be non-statutory subject matter. For a process claim to pass muster, the recited process must somehow apply, involve, use, or advance the technological arts.

Mere intended or nominal use of a component, albeit within the technological arts, does not confer statutory subject matter to an otherwise abstract idea if the component does not apply, involve, use, or advance the underlying process. In the

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present case, the method step of transmitting (sending and receiving) data (in claims 19 and 33) is a nominal recitation of technology.

In the present case, claims 1-9, 19 and 33 only recite an abstract idea. The recited method of inputting and storing data, analyzing said data for tendencies, detecting and displaying location, matching identification codes of purchased commodities, conducting a survey, and providing a shopping invoice/receipt (with list and price of purchased items) does not apply, involve, use, or advance the technological arts since all of the recited steps can be performed by use of a pencil and paper. The claimed invention, as a whole, is not within the technological arts as explained above, and claims 1-9, 19 and 33 are deemed to be directed to non-statutory subject matter.

Additionally, for a claimed invention to be statutory, the claimed invention must produce a useful, concrete, and tangible result. In the present case, the claimed invention collects and stores data for analysis (i.e., repeatable) to be used to present users with advertisements and to ask questions regarding particular commodities (i.e., useful and tangible).

Looking at the claims as a whole, nothing in the body of the claims recite and structure or functionality to suggest that a computer performs a task. Although the recited process produces a useful, concrete, and tangible result, since the claimed

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invention, as a whole, is not within the technological arts as explained above, claims 1-9, 19 and 33 are deemed to be directed to non-statutory subject matter.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1,2, 10-14, 19-23, 33-34 are rejected under 35 U.S.C. 102(e) as being anticipated by Treyz et al. (U.S Patent #6,587,835).

As per claim 1, Treyz et al. teaches a commodity data management method, comprising:

inputting (entering financial information by downloading the information from a person, computer or other device, by entering the information using dedicated keys, or by using any other suitable approach) purchase commodity data (information on financial transactions) of each customer in time series (time and

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date) at the time the customer selects **(purchases)** the commodity [Column 18, lines 9-14, and Column 45, line 15], and

determining a tendency of purchase commodity of each customer **(to determine the customer's interests)** according to the purchase commodity data **(customer's shopping activities such as purchase transactions and other financial transactions)** of each customer inputted in time series [Column 47, lines 29-35, and Column 47, line 54- Column 48, line 9].

As per claim 2, Treyz et al. teaches the commodity data management method according to claim 1, the inputting step further comprising:

detecting a location of the customer **(current location 695 using global positioning system satellites)** associated with inputted purchase commodity data [Column 23, lines 36-38, Figure 72].

As per claim 10, Treyz et al. teaches a commodity data input and output apparatus, comprising:

an input unit **(input interface 134)** configured to input **(enter financial information by downloading the information from a person computer or other device, by entering the information using dedicated keys, or by using any other suitable approach)** purchase commodity data **(information on financial transactions)** of each customer in time series **(time and date)** at the time the customer

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selects **(purchases)** the commodity [Column 16, lines 37-41, Column 18, lines 9-14, and Column 45, line 15]; and

a communication unit **(handheld computing device 12 in communication with communications network 32 over a wireless or wired communications link 40)** configured to send the purchase commodity data of each customer to a commodity data management apparatus [Column 11, lines 30-33].

As per claim 11, Treyz et al. teaches the commodity data input and output apparatus according to claim 10, further comprising:

a location detection unit **(local wireless transmitters and receivers used to detect handheld computing device 12)** configured to detect a location of the customer **(using global positioning system satellites)** associated with inputted purchase commodity data [Column 23, lines 8-22 and 36-68].

As per claim 12, Treyz et al. teaches the commodity data input and output apparatus according to claim 11,

wherein said communication unit sends an identification code **(satellite signals from GPS satellites)** of said commodity data input and output apparatus, and the location data of the customer **(current location information 695)** with the purchase commodity data **(time 696, historical location 698, transaction amount 700)** to said commodity data management apparatus [Figure 72, Column 23, lines 36-38 and Column 46, lines 9-13].

As per claim 13, Treyz et al. teaches the commodity data input and output apparatus according to claim 12,

wherein said communication unit (**handheld computing device 12**) receives commodity presentation data (**advertisement 344, reviews 336, price comparison 342, stock availability 334, warranty information 330, request for brochure 328, customer comments 338, financing information 332, and viewing of video 340**) usable for the customer's next purchase from said commodity data management apparatus [Figures 27-28, 34].

As per claim 14, Treyz et al. teaches the commodity data input and output apparatus according to claim 13, further comprising:

a display unit (**display 118**) configured to display the commodity presentation data (**advertisement 344, reviews 336, price comparison 342, stock availability 334, warranty information 330, request for brochure 328, customer comments 338, financing information 332, and viewing of video 340**) to the customer [Figure 5].

As per claim 19, Treyz et al. teaches a method for inputting and outputting commodity data, comprising:

inputting (**enter financial information by downloading the information from a person computer or other device, by entering the information using dedicated**

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keys, or by using any other suitable approach) purchase commodity data **(information on financial transactions)** of each customer in time series **(time and date)** at the time the customer selects **(purchases)** the commodity [Column 16, lines 37-41, Column 18, lines 9-14, and Column 45, line 15]; and

sending the purchase commodity data of each customer to a commodity data management apparatus **(using communications network 32 and wireless or wired communications link 40)** [Column 11, lines 30-33].

As per claim 20, Treyz et al. teaches a **handheld computing device 12**, comprising the steps of:

inputting **(entering financial information by downloading the information from a person computer or other device, by entering the information using dedicated keys, or by using any other suitable approach)** purchase commodity data **(information on financial transactions)** of each customer in time series **(time and date)** at the time the customer selects **(purchases)** the commodity [Column 18, lines 9-14, and Column 45, line 15], and

sending the purchase commodity data of each customer to a commodity data management apparatus **(using communications network 32 and wireless or wired communications link 40)** [Column 11, lines 30-33].

Although not explicitly taught by Treyz et al., the handheld computing device 12 is a computer usable medium inherently having computer readable program code

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enabling the device to perform the steps described above, meeting the limitations of the claim.

As per claim 21, Treyz et al. teaches a handheld computing device 12 configured to:

receive **(entering financial information by downloading the information from a person computer or other device, by entering the information using dedicated keys, or by using any other suitable approach)** purchase commodity data **(information on financial transactions)** of each customer in time series **(time and date)** at the time the customer selects **(purchases)** the commodity [Column 18, lines 9-14, and Column 45, line 15], and

determine a tendency of purchase commodity of each customer **(to determine the customer's interests)** according to the purchase commodity data **(customer's shopping activities such as purchase transactions and other financial transactions)** of each customer [Column 47, lines 29-35, and Column 47, line 54-Column 48, line 9].

As per claim 22, Treyz et al. teaches the commodity data management apparatus according to claim 21, wherein said communication unit receives an identification code **(satellite signals from GPS satellites)** of the commodity data input and output apparatus, an identification code of a commodity **(time 696, historical location 698, transaction amount 700)**, and location data of the customer **(current**

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location information 695) purchasing the commodity [Figure 72, Column 23, lines 36-38 and Column 46, lines 9-13].

As per claim 23, Treyz et al. teaches the commodity data management apparatus according to claim 22 further comprising:

memory (**random-access memory {RAM} 74, read-only memory {ROM} 76, other memory 78**) configured to correspondingly store information [Figure 4, Column 15, lines 8-10].

While Treyz et al. does not specifically teach what the memory is used to store, it is inherent that computer memory is configured to store a plurality of information in a plurality of formats, meeting the limitations of the claim.

As per claim 33, Treyz et al. teaches a method for managing commodity data, comprising:

receiving (**having users enter financial information by downloading the information from a person computer or other device, by entering the information using dedicated keys, or by using any other suitable approach**) purchase commodity data (**information on financial transactions**) of each customer in time series (**time and date**) at the time the customer selects (**purchases**) the commodity from a commodity data input and output apparatus [Column 18, lines 9-14, and Column 45, line 15]; and

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determining a tendency of purchase commodity of each customer **(to determine the customer's interests)** according to the purchase commodity data **(customer's shopping activities such as purchase transactions and other financial transactions)** of each customer received [Column 47, lines 29-35, and Column 47, line 54- Column 48, line 9].

As per claim 34, Treyz et al. teaches a computer program product for use with a computer **(handheld computing device 12)**, comprising the steps of:

receiving **(having users enter financial information by downloading the information from a person computer or other device, by entering the information using dedicated keys, or by using any other suitable approach)** purchase commodity data **(information on financial transactions)** of each customer in time series **(time and date)** at the time the customer selects **(purchases)** the commodity [Column 18, lines 9-14, and Column 45, line 15], and

determining a tendency of purchase commodity of each customer **(to determine the customer's interests)** according to the purchase commodity data **(customer's shopping activities such as purchase transactions and other financial transactions)** of each customer received [Column 47, lines 29-35, and Column 47, line 54- Column 48, line 9].

Although not explicitly taught by Treyz et al., the handheld computing device 12 is a computer usable medium inherently having computer readable program code

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enabling the device to perform the steps described above, meeting the limitations of the claim.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 15-18, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Treyz et al (U.S Patent #6,587,835).

As per claim 15, Treyz et al. teaches the commodity data input and output apparatus according to claim 14,

when said input unit inputs a payment command (**pay now options 626 and 628**) from the customer [Figure 60],

While not specifically taught by Treyz et al., the step of transmitting a customer's identification and financial information is old and well known in the art. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Treyz et al. with the well known step of transmitting identification and

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financial information of customers to a central repository in order to verify the identity and financial information of customers and to facilitate the completion of the financial transaction (authorizing transfer of funds from the customer's bank account to the store) and thereby providing merchants with the added confidence that the person submitting payment is indeed the person providing payment, providing the merchants with protection against credit fraud and stolen identity.

While not specifically taught by Treyz et al., the step of using a completion code is old and well known in the art. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Treyz et al. to include the well known step of using completion codes in order to notify users that their payment has been accepted and that the transfer of funds has been authorized, thereby providing customers with the added confidence that the proper amount has been charged to their account and successfully paid for.

As per claim 16, Treyz et al. teaches the commodity data input and output apparatus according to claim 15,

when said communication unit (**handheld computing device 12**) receives a list and a total price of purchased commodities (**history including stores visited, type of commodity purchased, total price of purchases 700**) from said commodity data management apparatus (**after entered or downloaded by user**),

wherein said display unit displays the list and the total (**history including stores visited, type of commodity purchased, total price of purchases 700**) to the customer [Figure 72, Column 46, lines 9-23].

As per claim 17, Treyz et al. teaches the commodity data input and output apparatus according to claim 16,

when said communication unit receives a question related to the purchase commodity (**promotional material**) from said commodity data management apparatus,

wherein said display unit displays the question (**promotional material**) to the customer.

As per claim 18, Treyz et al. teaches the commodity data input and output apparatus according to claim 17,

when said unit presents a question (**interactive promotional material**) to the customer [Column 31, lines 48-65],

Although not specifically taught by Treyz et al., the interactive promotional material presented to the customer inherently requires the customer to interact and provide input or feedback. The step of uploading the customer's response and identifying information to a central repository is old and well known in the art. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Treyz et al. to include the well known step of sending the answer and

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corresponding identifying information of customers to a central repository to obtain the benefits of enabling companies to use data mining techniques to conduct market research and customer profiling to obtain a better understanding of customer behavior and interests, and to create more effective and efficient targeted marketing offers, providing the benefit of increasing customer loyalty and sales.

As per claim 25, Treyz et al. teaches the commodity data management apparatus according to claim 23,

when said communication unit receives the identification code **(satellite signals from GPS satellites)** of the commodity data input and output apparatus [Column 23, lines 36-38],

wherein said data analysis unit extracts a list of purchase commodities corresponding to the identification code of the commodity data input and output apparatus **(transaction history with time 696 and historical location 698 of purchases)** from the purchase commodity table, and calculates the total of the purchase commodities **(transaction amount 700)** [Figure 72]; and

wherein said communication unit sends the list of purchase commodities **(transaction history)** and the total of the purchase commodities **(transaction amount 700)** to said commodity data input and output apparatus [Figure 72].

Treyz et al. does not expressly teach a completion code as recited in the claim; however, this difference is only found in the non-functional descriptive material and is

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not functionally involved in the steps recited nor does it alter the recited structural elements. The recited method steps would be performed the same regardless of the completion code. Further, the structural elements remain the same regardless of the completion code. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, *see In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994); MPEP § 2106.

It is an old and well-known concept in the art to confirm successful transmissions of data or financial payments. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Treyz et al. to include the well known concept of a completion code to be used to communicate confirmation of successfully completing financial transactions, inputting data, verifying user identities, and submitting a list of purchased items, thereby providing merchants with the added confidence that the person submitting payment is indeed the person providing payment, protecting the merchants against cases of credit fraud and stolen identity, and providing customers with the added confidence that the proper amount has been charged to their account and successfully paid for.

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11. Claims 3, and 8 - 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Treyz et al. (U.S Patent #6,587,835) as applied to claims 2 and 4 above, and further in view of Linden et al. (U.S Patent #6,266,649).

As per claim 3, Treyz et al. does not explicitly teach the step of storing information identifying customers and their purchases. However, Linden et al. makes up for this deficiency in his teaching of a recommendation service that stores an identifier of the customer (**user profile**), an identification code of a purchase commodity (**purchase history**), and an input time of the purchase commodity data (**date of purchase**) in a purchase commodity table (**user profile database**) [Column 7, lines 20-39] that are used to generate suggested purchases.

While Treyz et al. teaches a handheld computing device storing customer transaction information to provide shopping assistance services, Linden et al. teaches an analogous system that stores customer transaction information in order to generate a list of recommended items (based on previously purchased goods) to be presented to the user while shopping.

Official Notice is taken that it is old and well known in the art that a customer's purchase history contains a list of items purchased, including the identification code (ISBN, SKU numbers, etc.) and the store location where they were purchased. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the

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teachings of Treyz et al. to include the step of storing information regarding customers and customer transactions in order to collect the information necessary for determining reorder quantities and monitoring inventory levels, and enabling the use of data mining techniques to generate target marketing offers to customers belonging to specific customer segments and frequenting specific store locations, providing the added benefit of increased sales and customer loyalty.

As per claim 8, Treyz et al. teaches the commodity data management method according to claim 3 further comprising:

displaying a question (**interactive promotional material**), and
inputting an answer of the customer for the question [Column 31, lines 48-65].

Treyz et al. does not explicitly teach that the question is directed towards the commodity purchased by the customer, nor that the customer is presented with the question after the purchase has been made. Official Notice is taken that it is old and well known in the retailing business to obtain feedback from customers regarding their purchases. Customers are asked questions regarding their satisfaction with product selection, price, availability, and the product itself. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Treyz et al. to include the well known step of presenting customers with a question (and obtaining an answer) after the item has been purchased in order to collect marketing research

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regarding customer preferences that can be used to create targeted offers to cater product selection to clientele.

As per claim 9, Official Notice is taken that the step of displaying a list and a total price of purchased commodities inputted until then to the customer is an inherent practice in retailing, as point-of-sale terminals are configured to read and record the SKU number and price of each item scanned in order to create an invoice or receipt for all of the items the customer desires to purchase. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Treyz et al. to include the well known step of recording the description and price of items scanned to establish a written itemized record of purchases for recordkeeping and to enable users to verify the price and SKU number of items that they desire to purchase, reducing the likelihood of users unintentionally purchasing items they did not originally intend to purchase.

12. Claims 4-7, 24, and 26-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Treyz et al. (U.S Patent #6,587,835) and Linden et al. (U.S Patent #6,266,649) as applied to claim 3 above, and further in view of Suzuki (U.S Patent #6,129,274).

While Treyz et al. teaches a handheld computing device storing customer transaction information to provide shopping assistance services, and Linden et al.

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teaches a system that stores customer transaction information in order to generate a list of recommended items (based on previously purchased goods) to be presented to the user while shopping, Suzuki teaches an analogous system that uses an electronic personal digital shopping assistant to update a user's shopping transaction history and make purchase recommendations for replenishment items.

Treyz et al. and Linden et al. do not specifically teach the steps of selecting a pair of identification codes of purchase commodities of which a difference between two input times is below a threshold from the purchase commodity table or storing the pair of identification codes of purchase commodities in a data analysis result table.

Suzuki teaches a personal shopping system for storing a user's shopping transaction history using an electronic personal digital shopping assistant, making the most recent transaction data available to a retail store for promotional purposes and/or providing prompt, effective personalized recommendation services to a customer considering a transaction.

Suzuki teaches a method of:

selecting a pair of identification codes of purchase commodities (**necessity items**) of which a difference between two input times is below a threshold (**last purchase data of necessity items**) from the purchase commodity table (**customer shopping history information**) [Column 14, lines 4-8], and

storing the pair of identification codes of purchase commodities (**items**) in a data analysis result (**memory store 52 for recording and maintaining information relating to a customer's transactional preferences**) table [Figure 5, Column 11, lines 49-53].

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the combined teachings of Treyz et al. and Linden et al. to include the step of identifying and storing identification codes of purchase commodities whose input times are below a threshold in order to develop effective personalized item recommendations as taught by Suzuki, as the resulting combination yields the benefits of increasing customer loyalty, and conveniently providing customers with a list of recommended sales of items purchased with regularity or items that supplement (are related or coordinate well together with) purchased items.

As per claim 5, although not taught by Treyz et al., Linden et al. teaches the commodity data management method according to claim 4 further comprising:

when the purchase commodity data of the customer is newly inputted at the inputting step (**customer places item in shopping cart**), deciding whether an identification code of the newly inputted commodity purchase matches one of the pair of identification codes of purchase commodities (**filtering the similar items list to remove any items that exist in the shopping cart or have been purchased by the user**) in the data analysis result table [Column 16, lines 36-38].

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Treyz et al. to include the step of comparing commodities of interest to other commodities, as taught by Linden et al., in order to conveniently identify commodities that are similar, cheaper, substitutable (alternative), and related (commodities that are commonly purchased in conjunction with the commodity {for example, peanut butter and jelly, toothpaste and toothbrush, etc.}) to the commodities already known to be of interest to the user.

As per claim 6, Treyz et al. teaches the commodity data management method according to claim 5 further comprising:

displaying an advertisement (**advertisements, promotional information, and videos**) to the customer [Column 27, lines 27-28, and Column 31, lines 20-30 and 48-65].

Although not taught by Treyz et al., Linden et al. teaches the step of presenting a list of suggested items based on items placed in a customer's shopping cart (or that has already been purchased) [Column 9, lines 1-15]. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Treyz et al. to include the step of comparing commodities of interest to other commodities, as taught by Linden et al., in order to conveniently identify commodities that are similar, cheaper, substitutable (alternative), and related (commodities that are commonly purchased in

conjunction with the commodity {for example, peanut butter and jelly, toothpaste and toothbrush, etc.}) to the commodities already known to be of interest to the user.

As per claim 7, Treyz et al. teaches the commodity data management method according to claim 6, the displaying step further comprising:

displaying a location corresponding to the other of the pair of identification codes of purchase commodities (**identifying an item of interest using RFID techniques; obtaining mall directory information 434, store and product locator 440**) to the customer according to a present location of the customer detected at the detecting step [Column 34, lines 31-35, Claim 2, and Figure 37].

As per claim 24, Treyz et al. teaches memory (**random-access memory {RAM} 74, read-only memory {ROM} 76, other memory 78**) configured to correspondingly store information [Figure 4, Column 15, lines 8-10]. While Treyz et al. does not specifically teach what the memory is used to store, it is inherent that computer memory is configured to store a plurality of information in a plurality of formats, meeting the limitations of the claim.

While Treyz et al. teaches a handheld computing device storing customer transaction information to provide shopping assistance services, Suzuki teaches an analogous system that uses an electronic personal digital shopping assistant to store

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and update information regarding a user's shopping transaction history in order to make purchase recommendations for replenishment items.

Although not taught by Treyz et al., Suzuki teaches the step of selecting a pair of identification codes of purchase commodities (**necessity items**) of which a difference between two input times is below a threshold (**last purchase data of necessity items**) from the purchase commodity table (**customer shopping history information**) [Column 14, lines 4-8].

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Treyz et al. to include the step of identifying and storing identification codes of purchase commodities whose input times are below a threshold in order to develop promotional item recommendations that will increase sales of items purchased with regularity or items that supplement (are related or coordinate well together with) purchased items.

As per claim 26, although not taught by Tretz et al., Linden et al. teaches the commodity data management apparatus according to claim 24, when said communication unit newly receives an identification code of purchase commodity (**after the customer places item in shopping cart**),

wherein said data analysis unit decides whether the identification code of purchase commodity matches one of the pair of identification codes of purchase

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commodities **(filtering the similar items list to remove any items that exist in the shopping cart or have been purchased by the user)** in the purchase commodity table. [Column 16, lines 36-38].

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Treyz et al. to include the step of comparing commodities of interest to other commodities, as taught by Linden et al., in order to conveniently identify commodities that are similar, cheaper, substitutable (alternative), and related (commodities that are commonly purchased in conjunction with the commodity {for example, peanut butter and jelly, toothpaste and toothbrush, etc.}) to the commodities already known to be of interest to the user.

As per claim 27, Treyz et al. teaches the commodity data management apparatus according to claim 26, that contains memory **(random-access memory {RAM} 74, read-only memory {ROM} 76, other memory 78)** and displays advertisements **(advertisements, promotional information, and videos)** of commodities to the customer [Figure 4, Column 15, lines 8-10, Column 27, lines 27-28, and Column 31, lines 20-30 and 48-65].

While Treyz et al. does not specifically teach what the memory is used to store, it is inherent that computer memory is configured to store a plurality of information in a

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plurality of formats (links to advertisements or the advertisements themselves), meeting the limitations of the claim.

As per claim 28, Treyz et al. teaches the commodity data management apparatus according to claim 27,

if the identification code (**bar code or RFID information**) of purchase commodity matches one of the pair of identification codes of purchase commodities,

wherein said communication unit sends the advertisement (**advertisements, promotional information, and videos**) corresponding to the other of the pair of identification codes and the commodity name (**bar code or RFID information**) to the commodity data input and output apparatus (**handheld computing device 12**) [Column 27, lines 20-30, and Column 31, lines 20-30 and 48-65].

As per claim 29, Treyz et al. teaches the commodity data management apparatus according to claim 26, wherein said memory previously stores location data (**historical location 698 and current location 695**) corresponding to the identification code of each commodity [Figure 72, Column 45, line 65 – Column 46, line 23].

As per claim 30, Treyz et al. teaches the commodity data management apparatus according to claim 29,

if the identification code (**bar code or RFID information**) of purchase commodity matches one of the pair of identification codes of purchase commodities,

wherein said communication unit sends the location data (**information on an item in a store or other facility**) corresponding to the other of the pair of identification codes and the commodity name to the commodity data in put and output apparatus (**handheld computing device 12**) [Column 27, lines 55-62].

As per claim 31, Treyz et al. teaches the commodity data management apparatus according to claim 26,

wherein said communication unit sends a question (**interactive promotional material**) corresponding to the identification code of purchase commodity (**bar code or RFID information**) received to the commodity data in put and output apparatus.

Treyz et al. teaches memory (**random-access memory {RAM} 74, read-only memory {ROM} 76, other memory 78**) configured to correspondingly store information [Figure 4, Column 15, lines 8-10]. While Treyz et al. does not specifically teach what the memory is used to store, it is inherent that computer memory is configured to store a plurality of information in a plurality of formats (questions about a commodity), meeting the limitations of the claim.

As per claim 32, Treyz et al. teaches the commodity data management apparatus according to claim 31,

when said communication unit receives an answer **(input)** for the question **(interactive promotional material)** from the commodity data input and output apparatus.

Treyz et al. also teaches memory **(random-access memory {RAM} 74, read-only memory {ROM} 76, other memory 78)** configured to correspondingly store information [Figure 4, Column 15, lines 8-10]. While Treyz et al. does not specifically teach what the memory is used to store, it is inherent that computer memory is configured to store a plurality of information (answers to questions, identification code, identification information) in a plurality of formats, meeting the limitations of the claim.

Treyz et al. does not explicitly teach that an answer is received from the user, the presentation of interactive promotional material [Column 31, lines 48-65] inherently requires the user to interact and provide input or feedback, meeting the limitation of the claim.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jacobi et al. (U.S Patent #6,064,980) teaches a system and method for recommending books to users of a website. The recommendation service includes a

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database of titles that can be recommended by the service using collaborative filtering methods.

Cybul et al. (U.S Patent #6,415,261) teaches a method for managing a frequent shopper program at a site providing e-commerce shopping and in-store shopping. The invention comprises a POS purchase history database.

Tracy et al. (U.S Patent #5,979,757) teaches a system and method for presenting item information using a portable data terminal. The data terminal allows users to scan items and presents information regarding similar and alternative products.

Chislenko et al. (U.S Patent #6,092,049) teaches a method and apparatus for recommending items to users using automated collaborative filtering scores of users relating ratings to items in memory.

Boe et al. (U.S Patent #6,236,975) teaches a system and method for profiling customers for targeted marketing. The invention provides customers with questions, receives responses to the questions, and stores data associated with the responses.

Eldering (U.S Patent #6,298,348) teaches a consumer profiling system that is updated based on purchases made by consumers. The consumer profiles contain both demographic data and product preferences. Purchase records are transmitted to the consumer profiling system to update the consumer profiles.

Lazarus et al. (U.S Patent #6,430,539) teaches predictive modeling of consumer financial behavior. Merchant vectors representing specific merchants are clustered together to form merchant segments and are trained using consumer transaction data in previous time periods to predict spending in subsequent time periods.

Chasko (U.S Patent #6,901,373) teaches a method and apparatus for tracking customer purchasing habits. Customer identifying information (name, identification number, and PIN number) are stored in memory.

Deaton et al. (U.S Patent #5,642,485) teaches a system and method for selective incentive point-of-sale marketing in response to customer shopping histories. The invention comprises a bar code reader for detecting the universal product code on a plurality of different products, and memory for storing said customer transaction data regarding shopping histories and product purchases over a period of time.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Choi whose telephone number is (571) 272 6971. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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PC

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